

CLAIMS

1. A disc drive apparatus for creating a tracking error signal from reflected light resulting from a laser beam as one beam irradiated onto an optical disc, comprising:

first acquisition means for acquiring first information as information of a type of the optical disc;

second acquisition means for acquiring second information showing that the optical disc is operated in any of data write mode and data read mode to the optical disc;

detection means for detecting an RF (Radio Frequency) signal from the reflected light;

third acquisition means for acquiring, when the third information, which shows the presence or absence of the RF signal detected by the detection means, changes, one coefficient from a plurality of predetermined coefficients to calculate the tracking signal stored in a storage unit based on the first information, the second information, and the third information; and

arithmetic operation means for calculating the tracking error signal based on the intensity of the reflected light and the coefficient acquired by the third acquisition means.

2. A disc drive apparatus according to claim 1,

wherein when the first information or the second information changes, the third acquisition means acquires one coefficient from a plurality of the coefficients stored in the storage unit based on the first information, the second information, and the third information; and

the arithmetic operation means calculates the tracking error signal based on the intensity of the reflected light and the coefficient acquired by the third acquisition means.

3. A disc drive apparatus according to claim 1, wherein the first acquisition means acquires the first information that shows any of a DVD-R (Digital Versatile Disk Specifications for Recordable Disc), a DVD-RW (DVD Specifications for Re-recordable Disc), a DVD+R (DVD Specifications for +Recordable Disc), or a DVD+RW (DVD Specifications for +ReWritable Disc) as the type of the optical disc.

4. A disc drive method of driving a disc drive apparatus for creating a tracking error signal from reflected light resulting from a laser beam as one beam irradiated onto an optical disc, comprising:

a first acquisition step of acquiring first information as information of a type of the optical disc;

a second acquisition step of acquiring second

information showing that the optical disc is operated in any of data write mode and data read mode to the optical disc;

a detection step of detecting an RF signal from the reflected light;

a third acquisition step of acquiring, when the third information, which shows the presence or absence of the RF signal detected by the detection means, changes, one coefficient from a plurality of predetermined coefficients to calculate the tracking signal stored in a storage unit based on the first information, the second information, and the third information; and

an arithmetic operation step of calculating the tracking error signal based on the intensity of the reflected light and the coefficient acquired by the third acquisition means.

5. A recording medium in which a computer readable disc drive program is recorded to create a tracking error signal from reflected light resulting from a laser beam as one beam irradiated onto an optical disc, wherein the program comprises:

a first acquisition step of acquiring first information as information of a type of the optical disc;

a second acquisition step of acquiring second information showing that the optical disc is operated in any

of data write mode and data read mode to the optical disc; a detection step of detecting an RF signal from the reflected light;

a third acquisition step of acquiring, when the third information, which shows the presence or absence of the RF signal detected by the detection means, changes, one coefficient from a plurality of predetermined coefficients to calculate the tracking signal stored in a storage unit based on the first information, the second information, and the third information; and

an arithmetic operation step of calculating the tracking error signal based on the intensity of the reflected light and the coefficient acquired by the third acquisition means.

6. A program for causing a computer of a disc drive apparatus to execute disc drive processing, the disc drive apparatus creating a tracking error signal from reflected light resulting from a laser beam as one beam irradiated onto an optical disc, the program comprising:

a first acquisition step of acquiring first information as information of a type of the optical disc;

a second acquisition step of acquiring second information showing that the optical disc is operated in any of data write mode and data read mode to the optical disc;

a detection step of detecting an RF signal from the reflected light;

a third acquisition step of acquiring, when the third information, which shows the presence or absence of the RF signal detected by the detection means, changes, one coefficient from a plurality of predetermined coefficients to calculate the tracking signal stored in a storage unit based on the first information, the second information, and the third information; and

an arithmetic operation step of calculating the tracking error signal based on the intensity of the reflected light and the coefficient acquired by the third acquisition means.